

FIG. 1

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FIG. 2A

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	TGC	AGG	TCA	CCG	AGT	CCC	CAG	GAG	AGG	GGA	CTC	CTA	AGA	AGC	101			110	
	C	R	S	P	S	P	Q	E	R	G	L	L	R	S	H	L	P	V	
	TTT	ACC	CGG	CAG	CGA	GCG	CGC	AGG	CCC	CCG	CGA	ACT	CCT	GGC	155			164	
	F	T	R	Q	R	A	R	R	P	P	R	T	P	G	S	A	Q	E	
	AGG	CCG	TTG	CGC	CTC	GCG	AAG	GAA	ACA	GAG	CCG	TTG	ACC	ATG	209			218	
	R	P	L	R	L	A	K	E	T	E	P	L	T	M	V	A	T	G	
	AGT	TTG	AGC	AGC	AAG	AAC	CCG	GCC	AGC	ATT	TCA	GAA	TTG	CTG	263			272	
	S	L	S	S	K	N	P	A	S	I	S	E	L	L	D	C	G	Y	
	CAC	CCA	GAG	AGC	CTG	CTA	AGT	GAT	TTT	GAC	TAC	TGG	GAT	TAT	317			326	
	H	P	E	S	L	L	S	D	F	D	Y	W	D	Y	V	V	P	E	
	CCC	AAC	CTC	AAC	GAG	GTA	ATA	TTT	GAG	GAA	TCA	ACT	TGC	CAG	371			380	
	P	N	L	N	E	V	I	F	E	E	S	T	C	Q	N	L	V	K	
	ATG	CTG	GAG	AAC	TGT	CTG	TCC	AAA	TCA	AAG	CAA	ACT	AAA	CTT	425			434	
	M	L	E	N	C	L	S	K	S	K	Q	T	K	L	G	C	S	K	
	GTC	CTT	GTC	CCT	GAG	AAA	CTG	ACG	CAG	AGA	ATT	GCT	CAA	GAT	479			488	
	V	L	V	P	E	K	L	T	Q	R	I	A	Q	D	V	L	R	L	
	TCC	TCA	ACG	GAG	CCC	TGC	GGC	TTG	CGA	GGT	TGT	GTT	ATG	CAC	533			542	
	S	S	T	E	P	C	G	L	R	G	C	V	M	H	V	N	L	E	
	ATT	GAA	AAT	GTA	TGT	AAA	AAG	CTG	GAT	AGG	ATT	GTG	TGT	GAT	587			596	
	I	E	N	V	C	K	K	L	D	R	I	V	C	D	S	S	V	V	
	CCT	ACT	TTT	GAG	CTT	ACA	CTT	GTG	TTT	AAG	CAG	GAG	AAC	TGC	641			650	
	P	T	F	E	L	T	L	V	F	K	Q	E	N	C	S	W	T	S	

FIG. 2B

659	668	677	686	695	704
TTC AGG GAC TTT TTC TTT AGT AGA GGT CGC TTC TCC TCT GGT TTC AGG AGA ACT					
F R D F F F S R G R F S S G F					
					R R T
713	722	731	740	749	758
CTG ATC CTC AGC TCA GGA TTT CGA CTT GTT AAG AAA AAA CTT TAC TCA CTG ATT					
L I L S S G F R L V K K K L					
					Y S L I
767	776	785	794	803	812
GGA ACA ACA GTG ATT GAA GGG TCC TAA AAA GGG AAA ATA TAT AAA GAT TAT TTC					
G T T V I E G S *					
821	830	839	848	857	866
ATG ATT GGG TAG TAA AAC TAT TCA GCT AGT CAG CTA AAG TCA TTT GTA GTT TGC					
875	884	893	902	911	920
CCC ACC TGC CCT AAA TAA GAA ACC CCA AAT GTA GTC TCT TTT CTT TCT GTG TTT					
929	938	947	956	965	974
CAC ATT CAT AGC AAC TGC AGC TAA CAG GCT GAT TTT CTG GCC TTT GGA GAA GTG					
983	992	1001	1010	1019	1028
ATT CAA AAT AGT GTA GAT TTT CTG CAT AGA TCC CAT TTT TGT ACA GAA TTG AAT					
1037	1046	1055	1064	1073	1082
GGG ATG GAA TAG GTA AGC AAA AGT AGA AGC CCA TTT GAG TTT TAC ATT TGA TTC					
1091	1100	1109	1118	1127	1136
CAC AAT TTG GTT TCA GGT AGG CTT GGT GAT AGA CTA TAT AAA CCA GAT TTG CCT					
1145	1154	1163	1172	1181	1190
ATT TTG ATT TTC ATA TGG CTT TTT TTT CTG TAA GTT TTC AGA GGA TTT TTT AAA					
1199	1208	1217	1226	1235	1244
TCA CAG AAT CAT ACT AAA TGA TAT TTA GCC TAT CAA AAC TTC CAA AAG CCC ACA					
1253	1262	1271	1280	1289	1298
CCA CCA GTT CCT GAC TCA AAT TTG AAG GGT TTT TAG ACA GGA GGG TAG GAT TAA					
1307	1316	1325	1334	1343	1352
GTA GGT GAG TTT AAT TAA AGC TTA ACC CTA GGT AAG AGT AAA TGA GAA ATA TTA					
1361	1370	1379	1388	1397	1406
CGG CAA TAA TGG AAC TGC TTC ACT GTT TCT TGG TGA CTT CCT CAC TCT AAT GTT					
1415	1424	1433	1442	1451	1460
TTA AAG AGG CAA CAA AAG CTT ATG GTG CCA TTT CAG TAA CCA CGG TGT TGT TTT					
1469	1478	1487	1496	1505	1514
AGA TGC CTT TAT AAG CTC AGT TTC CCT TGT TCT TAA GTG TTG AAT ACT GTC TTT					
1523	1532	1541	1550	1559	1568
AAA CTA GAA AAA TGC AAA ATA TTG AAC TGA TAT TTC TGT GTG TAG TTT ATT ACT					
1577	1586	1595	1604	1613	1622
CTT CCA TTG AGT GAA TGA TGA ATA CCT GTG AGG ATA GGA AAT GAG TTC TGA GAT					
1631	1640	1649	1658	1667	1676
CTA GTC CCT CTC TGA TTC ACT TAG TAA TCT ATC CTC TTT TCA GTA TTA CAT GTG					
1685	1694	1703	1712	1721	1730

[illegible]

CTT	AAT	CTC	AGA	TGA	ACC	ATT	TCA	CCA	TGG	CAG	TGT	TAT	CTC	ATC	TCT	GGG	CTT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1739			1748			1757			1766			1775			1784	
TTC	TGG	GAA	TTG	AAG	TAT	CTC	TCC	TTA	ACC	CCA	ATT	GTC	AAG	GGT	AGT	AGC	TGT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1793			1802			1811			1820			1829			1838	
ATA	CTA	CCA	CTT	TGA	ATT	ATT	GAA	ACG	GGT	CAA	TTT	ACG	AAG	TCT	GCA	TTG	GCT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1847			1856			1865			1874			1883			1899	
ATG	GAG	ATA	TGG	TTT	ATA	GTA	CAG	CCT	AGA	GAA	TGA	AAC	TCA	CCG	TCC	AGA	TAA
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1901			1910			1919			1928			1937			1946	
CCA	TGC	ATG	CAC	CCA	GAT	TTT	TTC	CAC	CTT	GGA	TAC	CTG	TCA	CTA	GGG	AAT	AAT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1955			1964			1973			1982			1991			2000	
AAA	GGC	CTG	ATT	TTT	TGT	CTT	ATT	CCA	ACT	AAG	TAG	ATC	ATT	ATC	TCT	TTC	CTT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2009			2018			2027			2036			2045			2054	
TTT	TAT	GTT	AAT	GAG	AGA	ATT	TAG	CCT	CCA	CTC	AAC	AAT	GTT	CAA	TTC	AGC	AAG
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2063			2072			2081			2090			2099			2108	
GCT	TTC	ATA	TCC	TTG	CTG	TGG	GTC	GTG	GAT	AAG	GAG	CTT	ATT	CAG	GTT	TCC	TGC
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2117			2126			2135			2144			2153			2162	
CCT	AGC	TAT	TAG	CTC	CAC	TTC	ACA	TGC	TGG	AGA	CTG	GCG	TAG	GGA	CAG	ATG	TAT
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2171			2180			2189			2198			2207			2216	
TCA	TCC	TGG	TGT	TAC	TGA	AAA	ACA	GGT	GTG	ATC	CTG	TTA	GTG	ATA	CTA	TAA	GTG
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2225			2234			2243			2252			2261			2270	
ACC	TAA	AAT	GTC	ACT	GTT	CAA	ATT	AGC	AAG	TGT	TCT	AAC	AAA	CTA	AAC	TCT	TCA
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2279			2288			2297			2306			2315			2324	
AAT	GCT	TGG	AAA	GAT	ACT	ACA	AAG	CCA	ATC	TTT	ATA	GAA	TTG	GGC	CAA	GAT	AAA
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2333			2342			2351			2360			2369			2378	
TCT	ATG	TTG	TTT	TGC	ATG	GCT	ATT	GTT	AAG	CTC	CAA	AGG	TTC	ACT	GTG	TTT	CTG
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2387			2396													

FIG. 3

MVATGSLSSKNPASISELLDCGYHPESLLSDFDYWDYVVPEPNLNEVIFEESTC
QNLVKMLENCLSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGC
VMHVNLEIENVCKKLDRIVCSSVPTFELTLVFKQENCWSFRDFFSRGR
FSSGFRRTLILSSGFRLVKKKLYSLIGTTVIEGS

Fig. 4A

Query: 6 SLSSKNPASISELLDCGYHPESLLSDFDYWDYV-VPEPNLNEVIFEESTCQNLVKMLENC 64
SL S + S+ + G+ PE D Y D V +P+ L +E C NL+++L+
Sbjct: 45 SLESSDCESLDSS-NSGFGPEE---DSSYL DGVSLPDFELLSDPEDEHLCANLMQLLQES 100

Query: 65 LSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEP CGLRG CVMHVNLEIENVCKKLDRI 124
LS+++ +++L+P +L ++ +++LRL+ +EPCGLRG ++ V +E C + ++
Sbjct: 101 LSQARLGSRRLPARLLMPSQLLSQVGKELLRLAYSEPCGLRGALLDVCVEQKKSCHSVAQL 160

Query: 125 VCDSSVPTFELTLVFKQENC SWTXXXXXXXXXXXXX-XXXXTLILSSGFRLVKKKLYS 183
D S+VPTF+LTLV + ++ W +L LS+GFR++KKKLYS
Sbjct: 161 ALDPSLVPTFQLTLVLRLDSRLWPKIQGLSSANS SLVPGYSQSLTLSTGFRVIKKKLYS 220

FIG. 4B

Query: 6 SLSSKNPASISELLDCGYHPESLLSDFDYWDYV-VPEPNLNEVIFEESTCQNLVKMLENC 64
SL S + S+ + G+ PE D Y D V +P+ L +E C NL+++L+
Sbjct: 48 SLESSDCESLDSS-NSGFGPEE---DTAYLDGVSLPDFELLSDPEDEHLCANLMQLLQES 103

Query: 65 LSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEP CGLRG CVMHVNLEIENVCKKLDRI 124
L++++ +++L+P +L ++ +++LRL+ +EPCGLRG ++ V +E C + ++
Sbjct: 104 LAQARLGSRRLPARLLMPSQLVSVQVGKELLRLAYSEPCGLRGALLDVCVEQKKSCHSVGQL 163

Query: 125 VCDSSVPTFELTLVFKQENC SWTXXXXXXXXXXXXX-XXXXXXXTLILSSGFRLVKKKLYS 183
D S+VPTF+LTLV + ++ W +L LS+GFR++KKKLYS
Sbjct: 164 ALDPSLVPTFQLTLVLRLDSRLWPKIQGLFSSANS PFLPGFSQSLTLSTGFRVIKKKLYS 223

FIG. 5A

Query: 1 MVATGSLSSKNPASISELLDCGYHPESLLSDFDYWDYVVPENLNEVIFEESTCQNLVKM 60
 MVATGSLSSKNPASISELLD GYHP SLLSDFDYWDYVVPENLNEV+FEE+TCQNLVKM
 Sbjct: 1 MVATGSLSSKNPASISELLDGGYHPGSLLSDFDYWDYVVPENLNEVVFEETTCQNLVKM 60

Query: 61 LENCLSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK 120
 LENCLS+SKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK
 Sbjct: 61 LENCLSRKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK 120

Query: 121 LDRIVCDSSVPTFELTLVFKQENCSTSLKDFFFSRGRFSSGLKRTLILSSGFRLVKKK 180
 LDRIVCD+SVVPTFELTLVFKQE+C WTSKDFFFSRGRFSSGLKRTLILSSG+RLVKKK
 Sbjct: 121 LDRIVCDASVVPTFELTLVFKQESCPWTSKDFFFSRGRFSSGLKRTLILSSGYRLVKKK 180

Query: 181 LYSLIGHTTVIE 191
 LYSLIGHTTVIE
 Sbjct: 181 LYSLIGHTTVIE 191

FIG. 5B

Query: 43 NLNEVIFEESTCQNLVKMLENCLSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPCG 102
 NL++V S + L + L+ L +K+ L C++V +P LTQRIA +++R+S EPCG
 Sbjct: 162 NLDDV--SASAVRELSQQLQAQLRDAKRRHLACTEVTLPNDLTQRIAAEIIRMSEREPCG 219

Query: 103 LRGCVMHVNLEIE-NVCKKLDRIVCDSSVPTFELTLVFKQENCSTXXXXXXXXXXXXX 161
 R C + + E E N K++ D V FEL L +Q+ W+
 Sbjct: 220 ERACTLFIEFESEPNKVKRIAYFKVDPDTSIFELYLTLRQDKSGWS----SLVPQFIKN 275

Query: 162 XXXXXTLILSSGFRLVKKKLYS 183
 T+ +S F L KKKLYS
 Sbjct: 276 LTRSNTINISPDTLTKKKLYS 297

FIG. 5C

Query: 24 HPESLLSDFDYWDYVVPENLNEVIF----EESTCQNLVKML--ENCLSKSKQTKLGCS 76
 +P+ LSD+ W+Y VPE N ++F + L+KM N K L +
 Sbjct: 613 NPDVELSDYVMWEYNVPE--NTIVFSLHVNTLSRYKLLKMKSKNHNASEKQPDALLKTA 669

Query: 77 KVLVPEKLTQRIAQDVLRLSSTEPGLRG----VMHVNLEIENVCKKLDRIV 125
 ++++ TQ I DV +S+ PCGL + +N+ I+ + K++ I+
 Sbjct: 670 EIILVTD-TQTIVFDV--ISTVHPCGLNIIKKFYQYLKINIPIDVLPNKIEWII 720

Fig. 6A

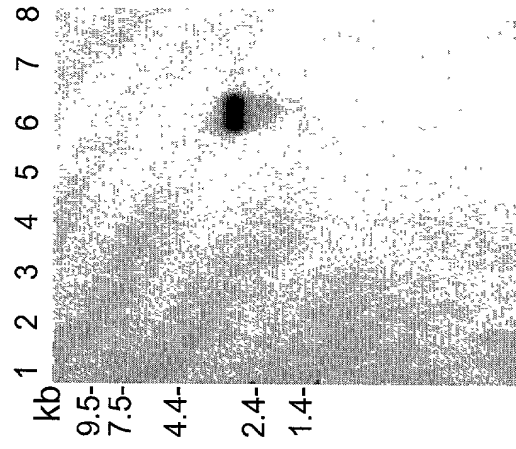


Fig. 6B

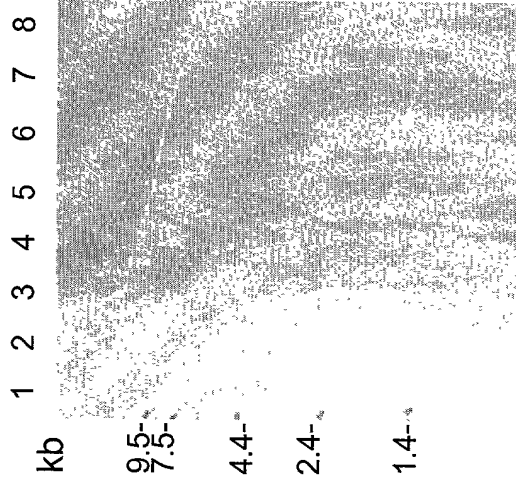


Fig. 6C

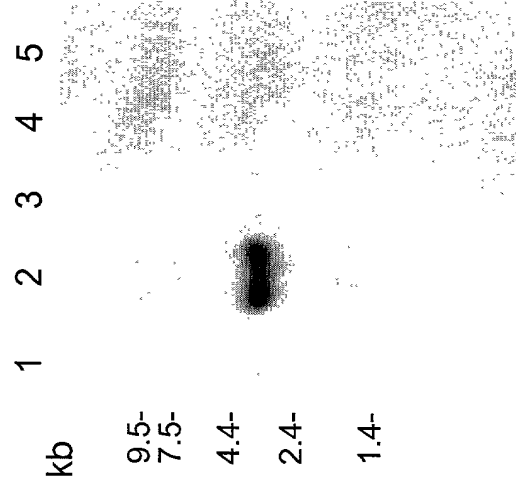


FIG. 7

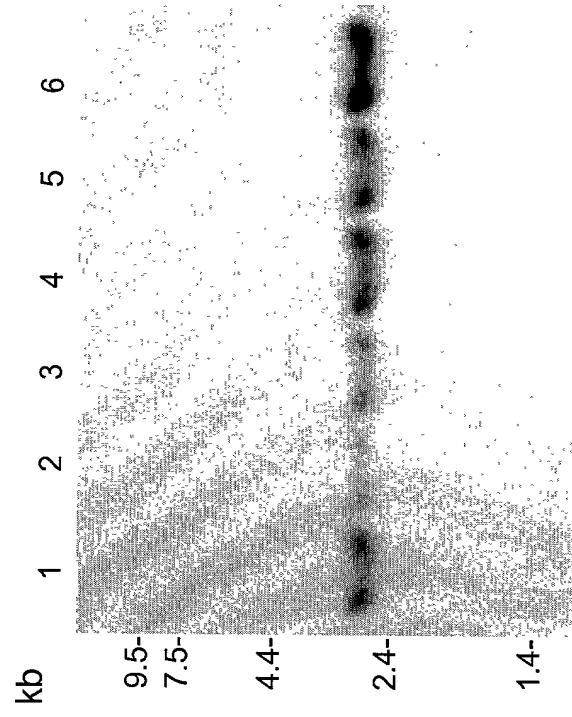


FIG. 8

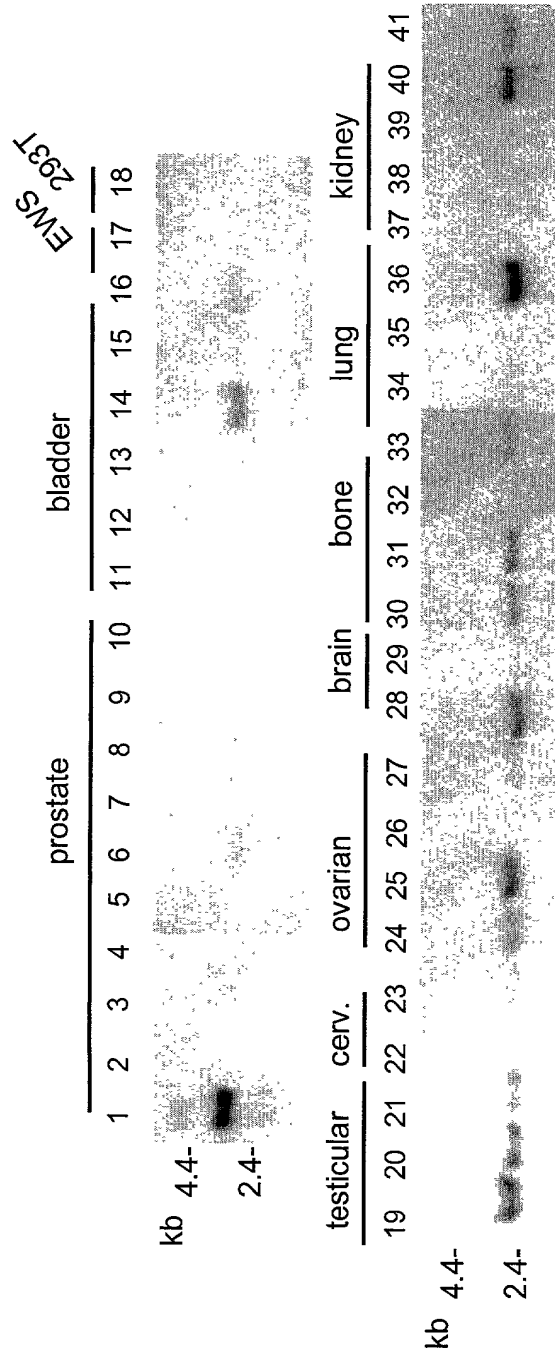


FIG. 9

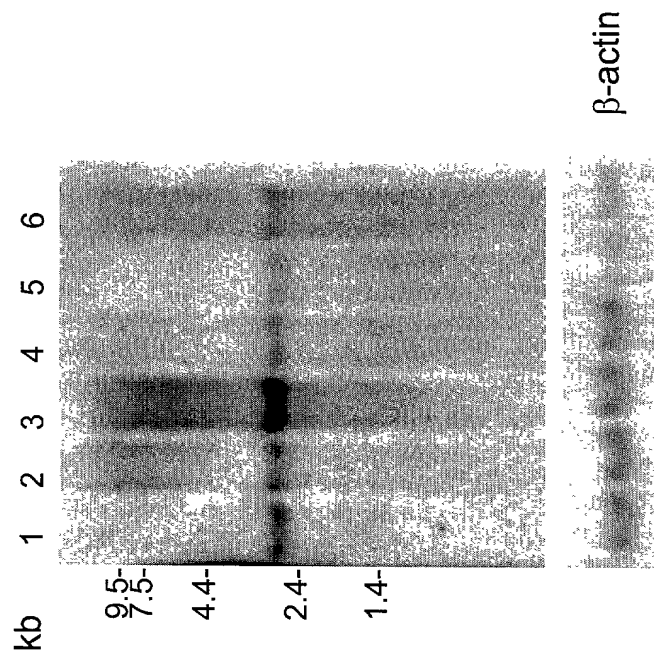


FIG. 10

1 2 3 4 5

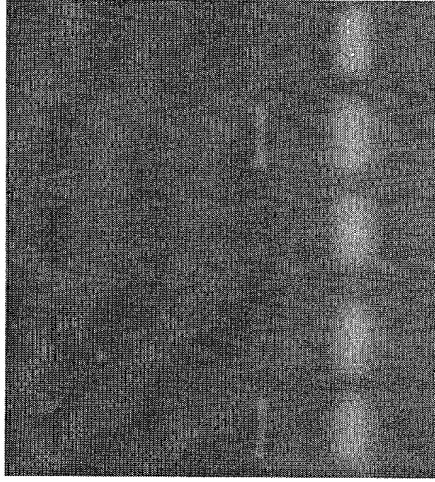


FIG. 11

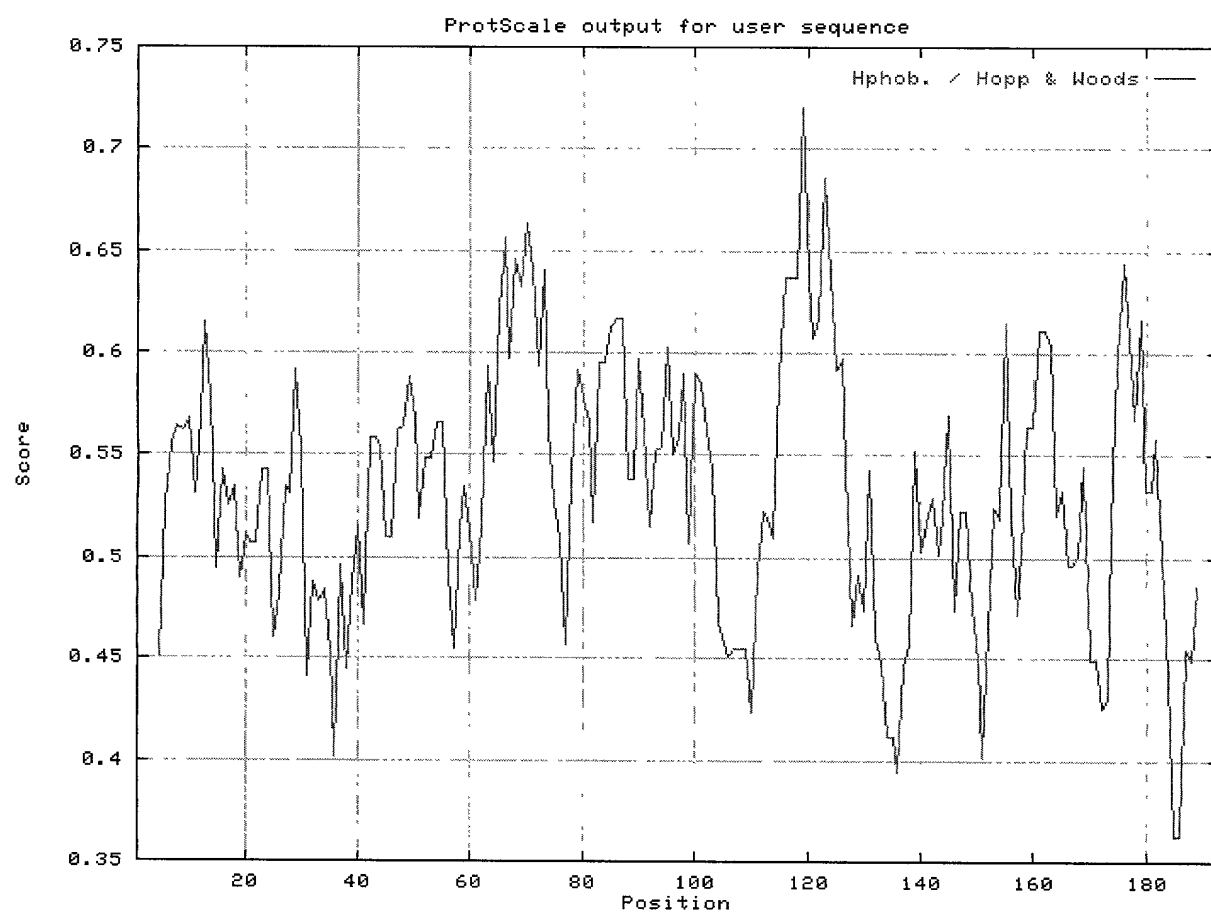


FIG. 12

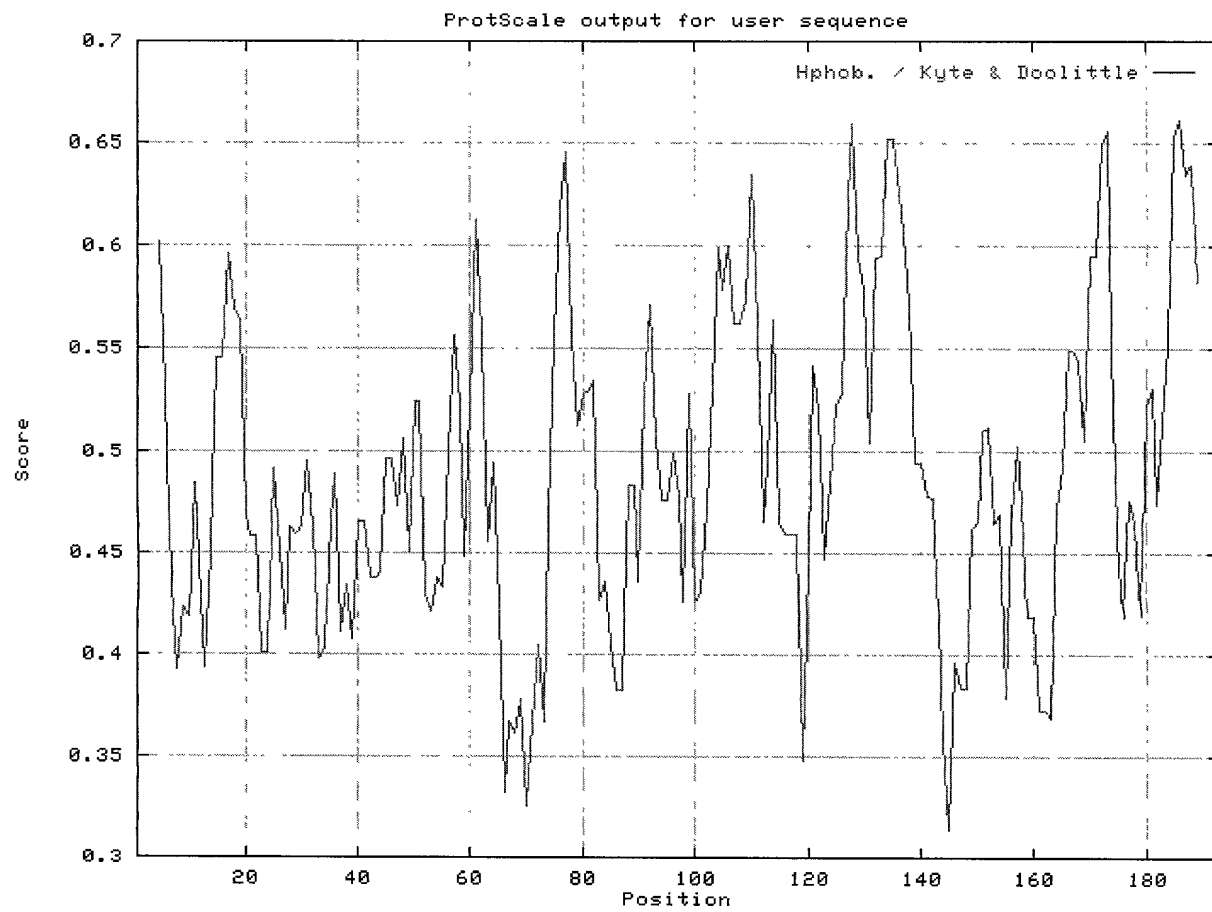


FIG. 13

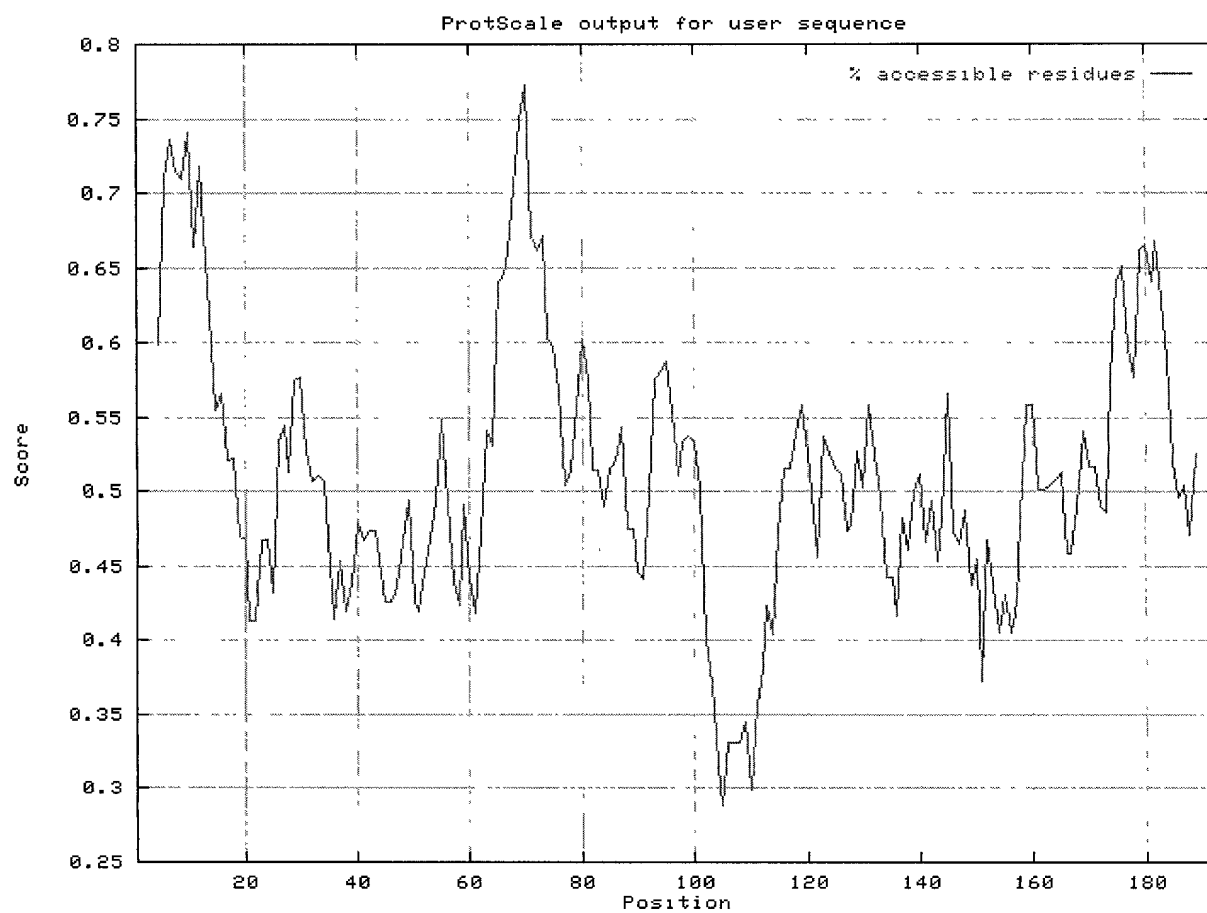


FIG. 14

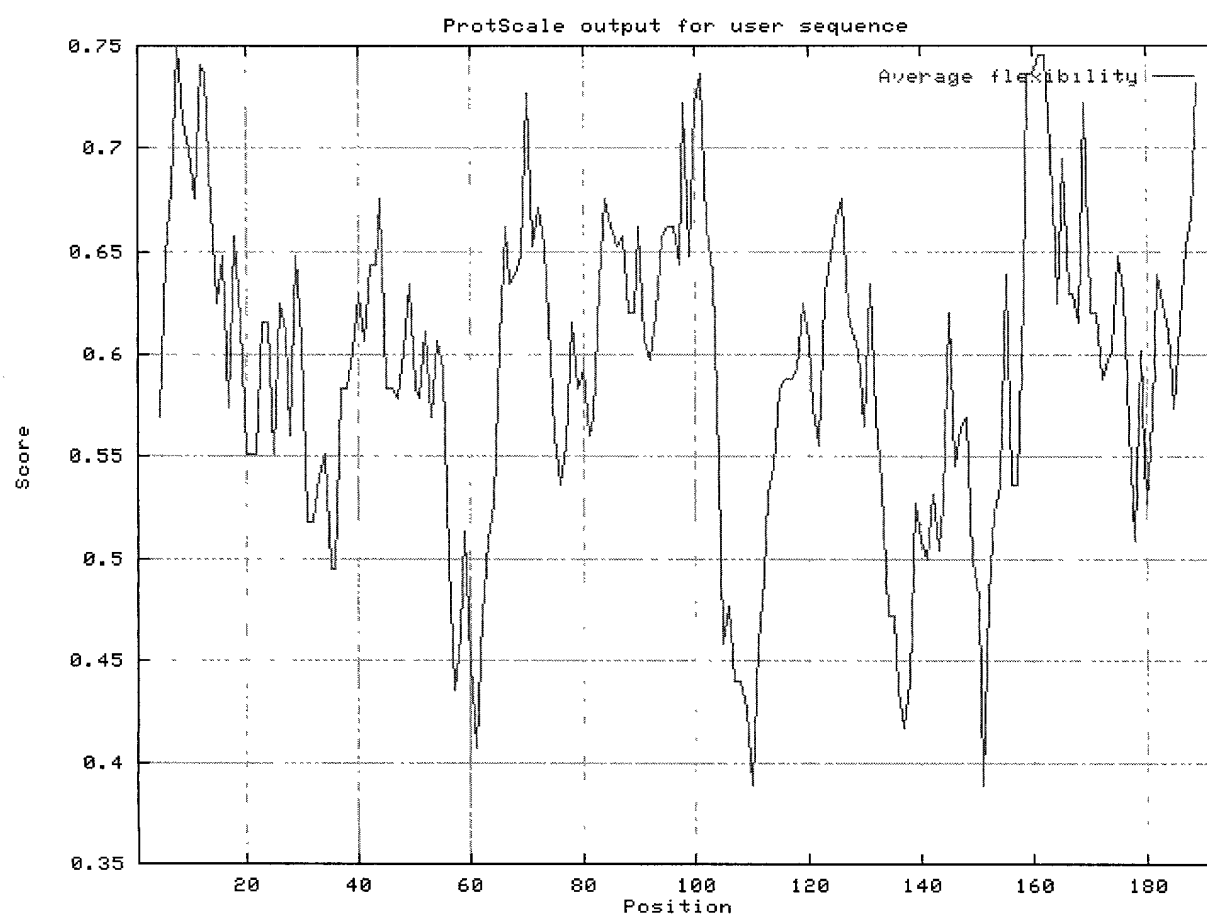


FIG. 15

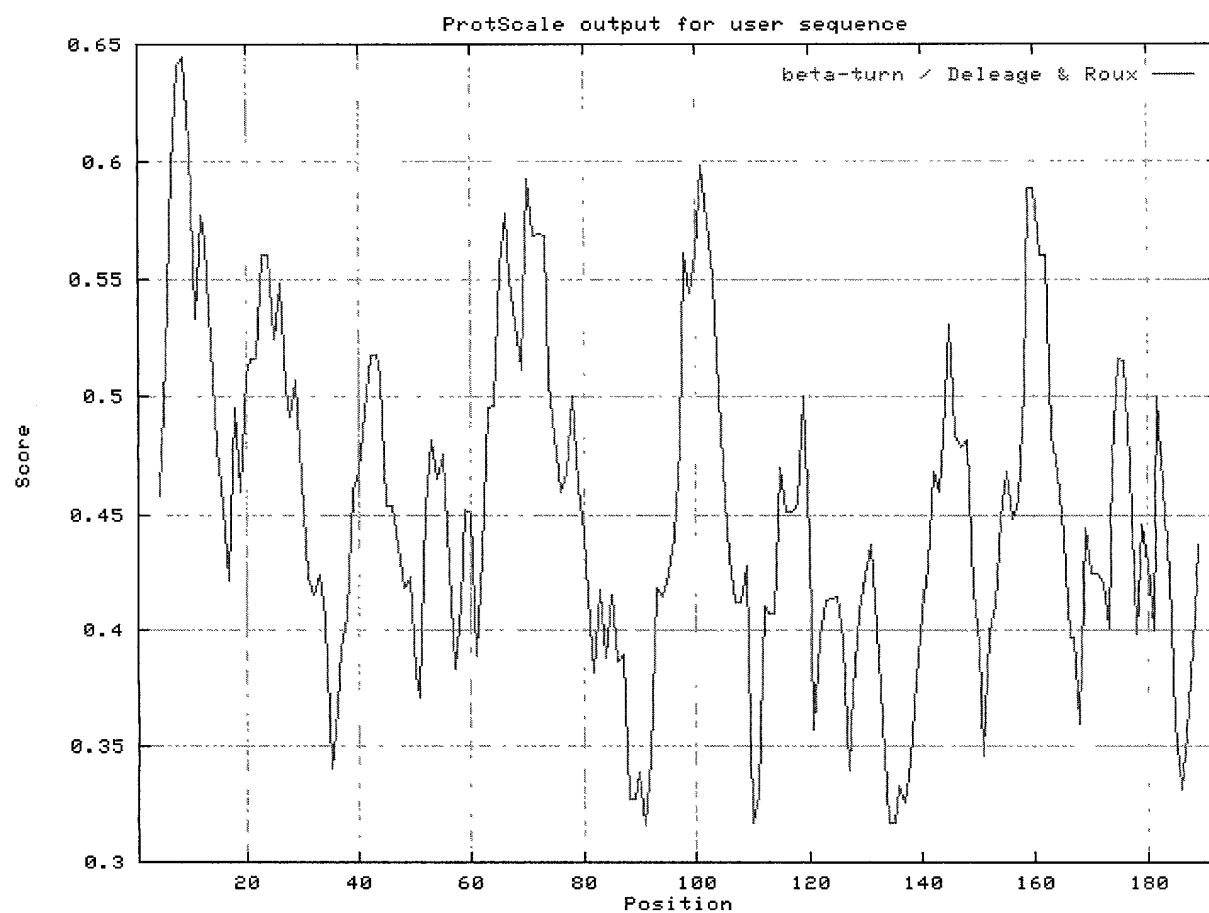


Fig. 16

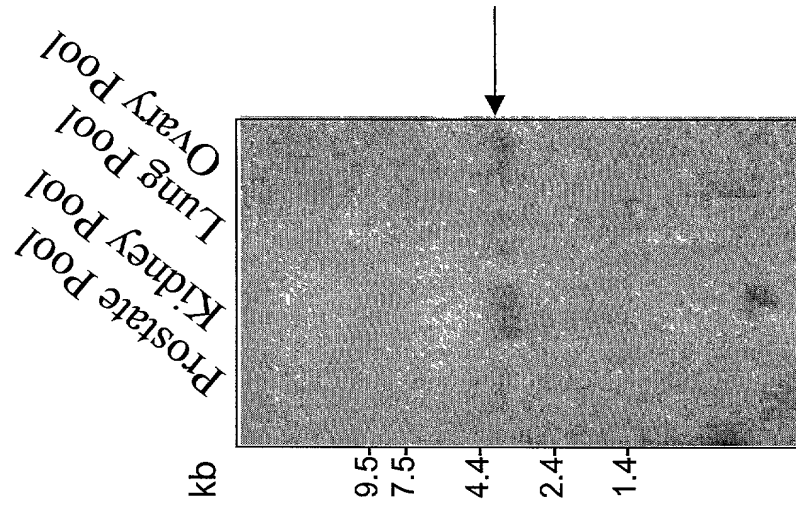


Fig. 17

